



Impacts of climate change on public health in India: Future research directions

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Abstract:

BACKGROUND: Climate change and associated increases in climate variability will likely further exacerbate global health disparities. More research is needed, particularly in developing countries, to accurately predict the anticipated impacts and inform effective interventions. **OBJECTIVES:** Building on the information presented at the 2009 Joint Indo-U.S. Workshop on Climate Change and Health in Goa, India, we reviewed relevant literature and data, addressed gaps in knowledge, and identified priorities and strategies for future research in India. **DISCUSSION:** The scope of the problem in India is enormous, based on the potential for climate change and variability to exacerbate endemic malaria, dengue, yellow fever, cholera, and chikungunya, as well as chronic diseases, particularly among the millions of people who already experience poor sanitation, pollution, malnutrition, and a shortage of drinking water. Ongoing efforts to study these risks were discussed but remain scant. A universal theme of the recommendations developed was the importance of improving the surveillance, monitoring, and integration of meteorological, environmental, geospatial, and health data while working in parallel to implement adaptation strategies. **CONCLUSIONS:** It will be critical for India to invest in improvements in information infrastructure that are innovative and that promote interdisciplinary collaborations while embarking on adaptation strategies. This will require unprecedented levels of collaboration across diverse institutions in India and abroad. The data can be used in research on the likely impacts of climate change on health that reflect India's diverse climates and populations. Local human and technical capacities for risk communication and promoting adaptive behavior must also be enhanced.

Source: <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3114809>

Resource Description

Exposure : ☐

weather or climate related pathway by which climate change affects health

Air Pollution, Extreme Weather Event, Food/Water Security, Food/Water Security, Indoor Environment, Meteorological Factors, Precipitation, Temperature

Air Pollution: Particulate Matter

Extreme Weather Event: Drought

Food/Water Security: Nutritional Quality

Climate Change and Human Health Literature Portal

Temperature: Extreme Heat, Fluctuations

Geographic Feature: ☒

resource focuses on specific type of geography

Rural, Urban

Geographic Location: ☒

resource focuses on specific location

Non-United States

Non-United States: Asia

Asian Region/Country: India

Health Impact: ☒

specification of health effect or disease related to climate change exposure

Cardiovascular Effect, Diabetes/Obesity, Infectious Disease, Injury, Morbidity/Mortality, Respiratory Effect, Other Health Impact

Infectious Disease: Foodborne/Waterborne Disease, Vectorborne Disease

Foodborne/Waterborne Disease: Cholera, Other Diarrheal Disease

Vectorborne Disease: Fly-borne Disease, Mosquito-borne Disease

Fly-borne Disease: Leishmaniasis

Mosquito-borne Disease: Chikungunya, Dengue, Malaria, Viral Encephalitis, Yellow Fever, Other Mosquito-borne Disease

Mosquito-borne Disease (other): Filariasis

Respiratory Effect: Asthma

Other Health Impact: Heatstroke; Hospitalizations

Mitigation/Adaptation: ☒

mitigation or adaptation strategy is a focus of resource

Adaptation

Population of Concern: A focus of content

Population of Concern: ☒

populations at particular risk or vulnerability to climate change impacts

Children, Elderly, Low Socioeconomic Status

Other Vulnerable Population: Urban populations

Resource Type: ☒

format or standard characteristic of resource

Research Article

Timescale: ☒

time period studied

Time Scale Unspecified

Vulnerability/Impact Assessment: ☒

resource focus on process of identifying, quantifying, and prioritizing vulnerabilities in a system

A focus of content